

What is claimed is:

1. (Previously Presented) A molded article made from a composition comprising:

5 at least one thermoplastic elastomer having at least one elastomeric phase and at least one thermoplastic phase, wherein the at least one thermoplastic phase consisting essentially of at least one propylene-based polymer and the at least one elastomer phase comprises a styrenic copolymer rubber phase or an at least partially crosslinked ethylene-propylene-diene rubber
10 phase; and

at least one nucleating agent for formation of nucleation sites for crystal growth within the thermoplastic phase of the thermoplastic elastomer, wherein the nucleating agent comprises sodium benzoate, a sorbitol derivative, an organic phosphate ester salt, an acrylic acid-grafted polypropylene, a
15 nucleating talc, or combinations thereof, and

wherein the molded article has been molded from the thermoplastic elastomer and the nucleating agent has enhanced the rate of crystal formation in the thermoplastic phase of the thermoplastic elastomer during cooling of the thermoplastic elastomer to achieve a solid crystal structure
20 for the molded article in a shorter time as compared to melt-processing of the thermoplastic elastomer into the molded article without the nucleating agent.

2. (Previously Presented) The molded article of claim 1, wherein
25 the at least one nucleation agent is dispersed within the at least one thermoplastic phase.

3. (Previously Presented) The molded article of claim 1, wherein the thermoplastic elastomer comprises at least two chemically distinct
30 thermoplastic phases.

4. (Previously Presented) The molded article of claim 3,
wherein the thermoplastic phase comprises a continuous phase and the
elastomer phase comprises a discontinuous phase dispersed in the continuous
thermoplastic elastomer phase.

5. (Previously Presented) The molded article of claim 4, wherein
the composition comprises about 0.005% to about 5% by weight nucleating
agent based on total weight of the thermoplastic phase in the thermoplastic
elastomer.

6. (Previously Presented) The molded article of claim 5, wherein
the thermoplastic elastomer comprises at least one thermoplastic phase of
polypropylene; and wherein the thermoplastic elastomer comprises styrene-
butadiene (SB) rubber, styrene-ethylene-butadiene-styrene (SEBS) rubber,
styrene-ethylene-propylene-styrene (SEPS) rubber, styrene-isoprene-styrene
(SIS) rubber, styrene-ethylene-ethylene-propylene-styrene (SEEPS) rubber,
styrene propylene-styrene (SPS) rubber, hydrogenated versions of the
foregoing, or combinations thereof.

7. (Previously Presented) The molded article of claim 6, wherein
the article has enhanced transparency as compared to an article formed from a
composition without the nucleating agent.

8. (Currently Amended) A method of using a nucleating agent to
enhance rate of formation of a solid crystal structure in a thermoplastic
elastomer being molded into an article, comprising the steps of:

adding a nucleating agent to a thermoplastic phase of a thermoplastic
elastomer to form the thermoplastic elastomer composition referred to in claim
1; ~~any of claims 1-7;~~

molding the thermoplastic elastomer composition into the article;
permitting the thermoplastic elastomer composition in the article to cool,
wherein the nucleating agent stimulates formation of a solid crystal structure
within the thermoplastic phase of the thermoplastic elastomer composition more
5 rapidly than if the nucleating agent were not present.

9. (New) The method of claim 8, wherein the nucleation agent is
dispersed within the thermoplastic phase.

10. (New) The method of claim 8, wherein the thermoplastic
elastomer comprises at least two chemically distinct thermoplastic phases.

11. (New) The method of claim 8, wherein the thermoplastic phase
comprises a continuous phase and the elastomer phase comprises a
15 discontinuous phase dispersed in the continuous thermoplastic elastomer phase.

12. (New) The method of claim 8, wherein the composition
comprises about 0.005% to about 5% by weight nucleating agent based on total
weight of the thermoplastic phase in the thermoplastic elastomer.

20

13. (New) The method of claim 8, wherein the thermoplastic
elastomer comprises at least one thermoplastic phase of polypropylene; and
wherein the thermoplastic elastomer comprises styrene-butadiene (SB) rubber,
styrene-ethylene-butadiene-styrene (SEBS) rubber, styrene-ethylene-propylene-
25 styrene (SEPS) rubber, styrene-isoprene-styrene (SIS) rubber, styrene-ethylene-
ethylene-propylene-styrene (SEEPS) rubber, styrene propylene-styrene (SPS)
rubber, hydrogenated versions of the foregoing, or combinations thereof.

14. (New) The method of claim 8, wherein the article has enhanced transparency as compared to an article formed from a composition without the nucleating agent.

5